In re of: 10/526,766 STOPPELMANN2

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method of producing a polyamide nanocomposite

from partially crystalline polyamides and organically modified layered silicates in a double screw extruder,

a first part of the polyamides being dosed into the extruder intake and melted and

the organically modified layered silicate being admixed with the melt of the polyamides and

then a second part of the polyamides being added to the mixture,

characterized in that the resulting melt is subjected to filtration.

2. (Original) The method according to Claim 1, characterized in that the filtration of the melt is performed directly before the extruder nozzle.

- 3. (Original) The method according to Claim 1, characterized in that a melt filtration is performed during a separate extrusion procedure.
- 4. (Currently Amended) The method according to one of Claims 1 through 3 Claim 1,

characterized in that wire filters having a mesh width of at most 200 μm , preferably between 50 μm and 100 μm , are used to perform the melt filtration.

5. (Currently Amended) The method according to one of Claims 1 through 4 Claim 1,

characterized in that, with the addition of the organically modified layered silicate, a mixture ratio in the range of 60 to 80 weight-percent of polyamides and 40-20 weight-percent of layered silicates is produced and the second part of the polyamides is added to the mixture in the quantity necessary in order to achieve the final concentration of the layered silicates of at most 10 weight-percent in the melt of the polyamide nanocomposite.

6. (Original) The method according to Claim 5,

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characterized in that, with the addition of the organically modified layered silicate, a mixture ratio of 70 weight-percent of polyamides and 30 weight-percent of layered silicates is produced and the second part of the polyamides is added to the mixture in the quantity necessary in order to achieve the final concentration of 2.5 to 6 weight-percent of the layered silicates in the melt of the polyamide nanocomposite.

7. (Currently Amended) The method according to—one of the preceding claims Claim 1,

characterized in that the layered silicates are organically modified using phosphonium salts of the formula $P-R_4-X$, R_4 representing three alkyl or aryl residues and X being a Cl, Br, or I.

8. (Currently Amended) The method according to one of the preceding claims Claim 1,

characterized in that the exfoliated layered silicates have an ultrafine grain having an average particle size in at least one dimension of at most 100 nm.

9. (Currently Amended) The method according to one of the preceding claims Claim 1,

characterized in that the polyamides are selected from a— the group which includes the consisting of homopolyamides PA 6, PA 66, PA 46, as well as PA 11 and PA 12.

- of the preceding claims Claim 1, characterized in that the partially crystalline polyamides are admixed with a component of amorphous polyamide.
- of the preceding claims Claim 1, characterized in that the organically modified layered silicates include phyllosilicates of the three-layer type (2:1).
- 12. (Currently Amended) An injection-molded part, which is produced using a polyamide nanocomposite obtained according to the method according to one of the preceding elaims Claim 1,

characterized in that it has a surface which has an average roughness value (R_a) of less than 0.05 μm and/or has an average roughness depth (R_z) of less than 4 μm .

13. (Original) The injection-molded part according to Claim 12,

characterized in that it includes a smooth surface having a high gloss produced by a molding tool polished to a high gloss.

- 14. (Currently Amended) A reflector for vehicle driving illuminators,
- characterized in that it includes an injection molded part according to Claim $12-\text{or}\ 13$ and is metallized directly.
- 15. (Currently Amended) A reflector for signal or street lights and/or a sub-reflector for vehicle driving illuminators,

characterized in that it includes an injection molded part according to Claim $12-\text{or}\ 13$ and is metallized directly.

- 16. (Currently Amended) The reflector according to $\frac{\text{one of Claims 14 or 15}}{\text{Claim 14}},$ characterized in that the metal coating is applied through PVD
- methods.
- 17. (Currently Amended) The useA method of using a polyamide nanocomposite molding compound produced according to

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one or more of Claims 1 through 11 Claim 1, comprising for injection molding said molding compound reflectors reflector into a for vehicle driving illuminators.

- 18. (Currently Amended) A use method of using a polyamide nanocomposite molding compound produced according to one or more of Claims 1 through 11 Claim 1, comprising for injection molding said molding compound into a reflector reflectors for signal or street lights and/or or into a subreflector—sub-reflectors for vehicle driving illuminators.
- 19. (Currently Amended) The method of use of a polyamide nanocomposite molding compound produced according to one or more of Claims 1 through 11 Claim 17, characterized in that the a gas injection molding technique is used during injection molding.
- 20. (New) The reflector according to Claim 15, characterized in that the metal coating is applied through PVD methods.